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2004 BOBCAT TRAPPER HARVEST IN THE NORTHERN LOWER PENINSULA

Brian J. Frawley, Dwayne Etter, and David Bostick

ABSTRACT

A survey was completed to determine the number of people trapping bobcats, the number of days trapping, the number of bobcats captured, and the number of bobcats released alive in the northern Lower Peninsula (NLP) of Michigan. In 2004, 2,180 furtakers obtained a bobcat harvest permit before December 21 allowing them to trap bobcats in the NLP. About 15% of these people attempted to trap bobcats in the NLP (326 trappers). Trappers spent nearly 2,750 days trapping bobcats, captured an estimated 151 bobcats, and released 68 of these bobcats alive. About 30% of the trappers captured at least one bobcat. About 51% of the successful trappers reported it was likely they would have attempted to take a bobcat in the NLP while hunting if they had not already trapped a bobcat. About 50% of the trappers believed bobcat numbers were increasing in counties where they trapped in the NLP, while 31% believed numbers were stable and 5% thought bobcat numbers were declining. About 93% of trappers reported they were very likely or somewhat likely to continue trapping bobcats during the next five years in the NLP.

INTRODUCTION

Prior to 2004, only hunters were allowed to harvest a bobcat (*Lynx rufus*) in the NLP, and bobcat trapping was restricted to the Upper Peninsula (UP) (Frawley et al. 2004). In 2004, an 11-day bobcat trapping season (December 10-20) was held on private lands in portions of the northern Lower Peninsula (NLP). Trappers could capture bobcats in twenty-one counties in the NLP in 2004 (Table 1). In order to trap bobcats, trappers were required to obtain a free bobcat harvest permit, in addition to a fur harvester license.

The bobcat bag limit was one in the NLP. Successful trappers were required to register harvested animals by March 4, 2005. Trappers were not allowed to keep bobcats that were beyond the legal limit of one bobcat per trapper (incidental captures). Trappers were required

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to bring incidental catches to a registration station if they could not be released alive. Foothold traps were the only trap type that trappers could legally use to capture bobcats.

Harvest surveys are a management tool used by the Wildlife Division to help accomplish their statutory responsibilities. The main objectives of this harvest survey were to determine the number of trappers that trapped bobcats, the number of days trapped, and the number of bobcats harvested by trappers in the NLP during 2004. Information from harvest surveys, mandatory registration, winter track counts, and population modeling are used to monitor bobcat populations and establish harvest regulations.

Although bobcats could be harvested by both hunters and trappers, this survey is limited to trapping. A separate survey will be conducted to estimate participation and harvest of bobcat by hunters. Although all furtakers harvesting a bobcat were required to present these animals at a Department of Natural Resource office for registration, this survey does not present information collected from registered bobcats.

METHODS

A questionnaire was sent to everyone who obtained a bobcat harvest permit in 2004 prior to the end of the trapping season in the NLP (2,180 permit holders). Trappers receiving the questionnaire were asked to report if they trapped bobcats, number of days spent afield, and number of bobcats they caught, as well as the number they released alive. Trappers were asked the type of private lands where they set traps (i.e., size and ownership) and the status of the bobcat population in the NLP. Successful trappers also were asked whether they believed they would have attempted to take a bobcat while hunting if they had not already taken a bobcat.

Questionnaires were mailed initially during mid-January 2005, and up to two follow-up questionnaires were mailed to nonrespondents. Although 2,180 people were sent the questionnaire, 75 surveys were undeliverable resulting in an adjusted sample size of 2,105. Questionnaires were returned by 1,598 people, yielding a 76% adjusted response rate.

Although questionnaires were sent to all permit holders, not all furtakers returned their questionnaire. Estimates were interpolated from the sample to all permit holders using a simple random sampling design (Cochran 1977) and were presented along with their 95% confidence limit (CL). This confidence limit can be added and subtracted from the estimate to calculate the 95% confidence interval. The confidence interval is a measure of the precision associated with the estimate and implies the true value would be within this interval 95 times out of 100. Estimates were not adjusted for possible response or nonresponse bias.

RESULTS

In 2004, 2,180 people obtained a bobcat harvest permit prior to the end of the trapping season in the NLP. About 15 ± 1% (326 trappers) of these people attempted to trap bobcats in the NLP (Table 1). Trappers spent 2,756 days trapping ($\bar{x}$ = 8.5 ± 0.3 days/trapper), captured 151 bobcats ($\bar{x}$ = 0.46 ± 0.06 bobcats/trapper), and released 68 of these bobcats alive ($\bar{x}$ = 0.21 ± 0.05 bobcats/trapper). About 30% of trappers successfully captured at least one bobcat.

Bobcat trappers most frequently trapped on private land not owned by themselves or their family (62 ± 3%). About 51 ± 3% of the trappers trapped on their own land or land owned by their family. Nearly 10 ± 2% of trappers pursued bobcats on land owned by private hunting clubs, and 8 ± 2% of the trappers sought bobcats on private land open to public hunting (e.g., commercial forest lands). Most trappers usually trapped on properties that were less than 640 acres (91 ± 2%), while 9 ± 2% of trappers usually trapped on properties equal to or greater than 640 acres.

About 50 ± 3% of bobcat trappers reported that bobcat numbers were increasing and 31 ± 3% indicated bobcat numbers were stable in the county where they trapped in the NLP (Figure 1). Only 5 ± 1% reported that bobcat numbers were decreasing. Moreover, 10 ± 2% of trappers were uncertain about the status of bobcats and 5 ± 1% did not report on the status.

Successful trappers were asked whether they would have attempted to take a bobcat while hunting in the NLP if they had not already caught a bobcat while trapping. About 51 ± 6% reported it was likely they would have attempted to take a bobcat in the NLP while hunting if they had not already taken a bobcat while trapping (Figure 2). While 39 ± 6% reported it was unlikely they would have attempted to take a bobcat while hunting.

Of the estimated 326 people trapping bobcats in the NLP during 2004, 93 ± 2% of the trappers were very likely or somewhat likely to trap bobcats during the next five years (303 ± 19). About 3 ± 1% of the trappers indicated they were not very likely or not at all likely to trap bobcats during the next five years (11 ± 4 trappers). About 2% of the trappers (5 ± 3 trappers) were not sure whether they would trap bobcats again during the next five years. Finally, 2% of the trappers failed to indicate whether they would trap bobcats again.

DISCUSSION

An estimated 579 bobcat hunters and trappers active in 2003 indicated they were likely to trap bobcats in the NLP in 2004 (Frawley et al. 2004). We estimated 326 people attempted to trap bobcat in the NLP in 2004, which was fewer than the number anticipated before the season.

Bobcat trappers in the NLP during 2004 were nearly as successful as bobcat trappers in the UP during 2003. About 30% of trappers in the NLP were successful in catching a bobcat in 2004. In contrast, 40% of bobcat trappers in 2003 caught a bobcat in the UP; however, UP trappers had 128 days (October 25, 2003 – March 1, 2004) to capture a bobcat compared to 11 days for NLP trappers (Frawley et al. 2004). In 2004, trappers spent an average of 33 days per bobcat caught (excluding released animals) from the NLP, versus an average of 34 days per captured bobcat in the UP in 2003 (Frawley et al. 2004).

A greater proportion of trappers active in the NLP during 2004 indicated that bobcat numbers were increasing than suggested by statewide estimates gathered from both hunters and trappers in 2003. In 2004, 50% of bobcat trappers reported bobcat numbers were increasing and 31% indicated bobcat numbers were stable in the county where they trapped in the NLP. Only 5% reported bobcat numbers were decreasing. In comparison, about 42% of bobcat hunters and trappers reported the bobcat population was stable statewide in 2003 (Frawley et

al. 2004). Nearly equal proportions of hunters and trappers in 2003 indicated bobcat numbers were increasing (17%) or decreasing (16%).

Hunters could also harvest bobcats in the NLP in 2004; however, the hunting season started after the trapping season ended. Some of the bobcats harvested by trappers in the NLP in 2004 probably would have been taken by hunters if they had been available when the hunting season occurred. About 51% of the trappers that took a bobcat in the NLP reported it was likely they would have attempted to take a bobcat in the NLP while hunting if they had not already been successful.

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Frawley, B. J., D. Etter, and D. Bostick 2004. Bobcat hunter and trapper opinion survey. Wildlife Division Report 3427. Michigan Department of Natural Resources, Lansing, USA

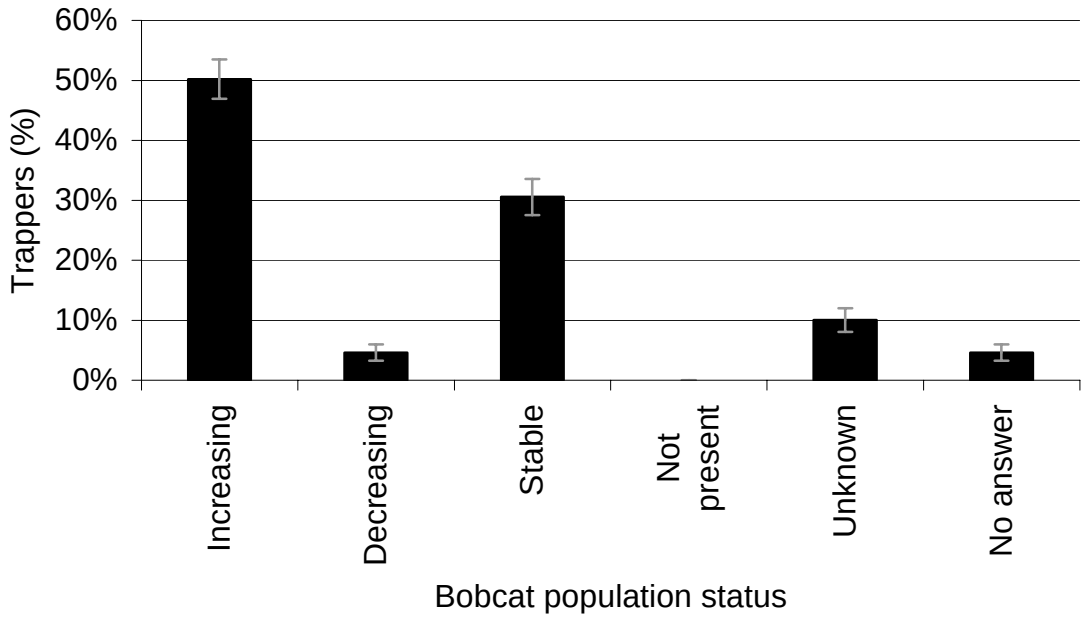


Figure 1. Status of bobcats in the NLP of Michigan as described by bobcat trappers in 2004.

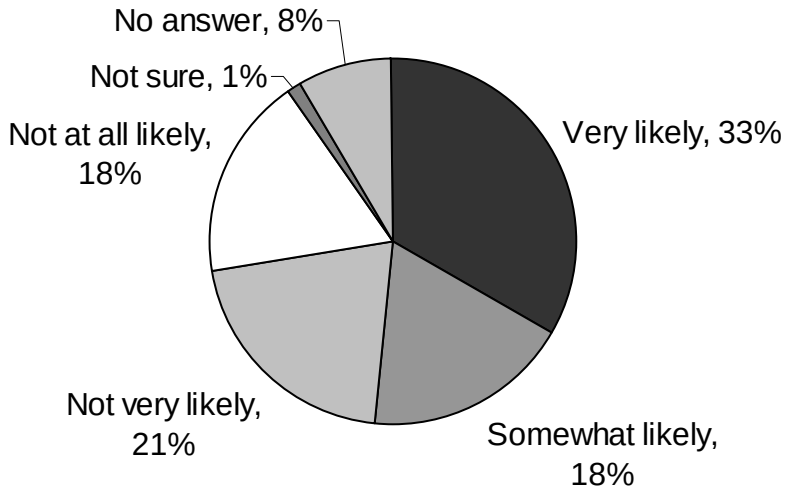


Figure 2. The likelihood that successful trappers would have attempted to take a bobcat while hunting if they had not already trapped a bobcat in the NLP during 2004.

Table 1. Estimated number of trappers, trapping effort, bobcats captured, bobcats released alive, and trapper success during the 2004 bobcat trapping season in the NLP of Michigan.

	Trappers		Trapping effort (days)		Bobcats captured		Bobcats released alive		Success	
County	No.	95% CL	No.	95% CL	No.	95% CL	No.	95% CL	%	95% CL
Alcona	22	6	157	43	4	2	1	1	19	10
Alpena	30	6	216	49	7	3	1	1	23	9
Antrim	11	4	104	37	4	2	1	1	38	19
Arenac	0	0	0	0	0	0	0	0		
Charlevoix	5	3	48	25	1	1	0	0	25	25
Cheboygan	29	6	239	56	5	3	4	3	14	8
Clare	33	7	250	55	20	12	14	10	29	10
Crawford	14	4	105	37	1	1	0	0	10	10
Emmet	7	3	70	32	7	7	7	7	20	20
Gladwin	11	4	95	35	5	3	0	0	50	19
Iosco	12	4	102	36	7	6	3	3	22	15
Kalkaska	14	4	95	33	12	6	7	5	60	17
Missaukee	29	6	209	50	12	5	4	3	29	10
Montmorency	18	5	134	41	5	3	3	3	23	12
Ogemaw	16	5	116	37	8	6	5	6	25	13
Osceola	26	6	190	49	10	4	0	0	37	12
Oscoda	10	4	65	28	3	2	3	2	29	19
Otsego	5	3	52	26	5	6	4	4	25	25
Presque Isle	23	6	150	42	10	7	7	5	12	8
Roscommon	26	6	162	43	16	6	3	2	53	12
Wexford	26	6	198	49	7	4	1	1	21	10
Unknown	1	1	0	0	0	0	0	0	0	
Total[a]	326	20	2,756	190	151	23	68	18	30	3

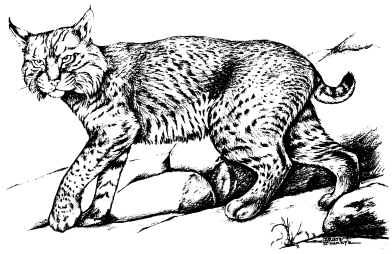
[a]Number of trappers does not add up to statewide total because trappers could trap in more than one county.

Appendix A. The questionnaire sent to bobcat trappers in this study.

MICHIGAN DEPARTMENT OF NATURAL RESOURCES, WILDLIFE DIVISION
PO BOX 30030 LANSING MI 48909-7530

2004 BOBCAT TRAPPER HARVEST IN THE LOWER PENINSULA

This information is requested under authority of Part 435, 1994 PA 451, M.C.L. 324.43539.



It is important that you complete and return this questionnaire even if you did not trap or capture a bobcat.

1. Did you attempt to trap bobcats in Management Units C or D in the northern Lower Peninsula (NLP) during the 2004 season *(December 10-20, 2004)*?

1 ☐ Yes 2 ☐ No, *Skip to question number 7.*

2. If you trapped in the NLP during the 2004 bobcat season, please complete the following table.

COUNTY TRAPPED (List each county that you trapped for bobcat.)	**NUMBER OF DAYS TRAPPED**	**NUMBER OF BOBCAT CAUGHT** (Count all bobcats you removed from your traps dead or alive.)	**NUMBER OF BOBCAT CAUGHT AND RELEASED** (Count only bobcats you released alive from your traps.)

3. On what lands did you trap bobcat in the NLP? (*You may check more than one.)*

1 ☐ Property owned by me or my family

2 ☐ Private land owned by a hunting club (not owned by you or your family)

3 ☐ Private land owned by somebody other than you or your family or a hunting club

4 ☐ Private land open to public hunting (For example, Commercial Forests, Hunter Access Program)

4. What was the most common size of the properties that you set traps for bobcat in the NLP? (Select *one choice.)*

1 ☐ Less 640 acres (1 square mile)

2 ☐ Equal to or greater than 640 acres (1 square mile)

Questions continued on reverse side.

5. If you took a bobcat in the NLP in 2004, please answer the following question. Otherwise skip to Question #6.

If the trapping season had not existed in the NLP in 2004, how likely is it that you would attempt to take a bobcat while hunting in the NLP during the 2004-2005 winter season?

1 ☐ Very likely 2 ☐ Somewhat likely 3 ☐ Not very likely 4 ☐ Not at all likely 5 ☐ Not sure

6. What do you believe is the status of the bobcat population in the NLP in the county where you trapped most often during 2004?

1 ☐ Increasing 2 ☐ Decreasing 3 ☐ Stable 4 ☐ Not present 5 ☐ Unknown

7. How likely is it that you will trap bobcats in the NLP in the next 5 years?

1 ☐ Very likely 2 ☐ Somewhat likely 3 ☐ Not very likely 4 ☐ Not at all likely 5 ☐ Not sure

8. Do you have any comments or suggestions about bobcat management in Michigan?

_____

_____

_____

Please return questionnaire in the enclosed postage-paid envelope.
Thank you for your help.